

3.4

Personal Loans, Lines of Credit, and Overdrafts

EXPLORE THE MATH

Generally, it is a good idea to wait until you have saved up enough money to buy something. Sometimes, though, it makes sense to borrow money for something, and then pay it back over time. For example, you might need to pay for college, which will help you get a career. Or you might want to buy a vehicle so you can transport tools to your job. In both of these cases, you may need to take out a loan. There are various ways you can borrow money.

- A **loan** is an amount of money that you borrow. You receive the full amount of the loan when you sign the agreement, and interest is calculated from that date to the final date of the loan. The length of time required to pay off the loan is called the **amortization period**.
- A bank **line of credit** is an approved loan amount that gives you quick access to money in case you need it in the future. It has a credit limit, similar to a credit card, and interest is charged on the amount of money used.

Loan: money that is borrowed for a specific term, to be paid back with interest

Amortization period: the time required to pay back a loan

Line of credit: an approved loan amount that you can draw on as needed, with interest charged on the money used

Overdraft protection: an agreement with a bank that allows you to withdraw more money from an account that you have in it, up to a specified amount

- Banks offer **overdraft protection**, which allows you to withdraw more from your account than you have in it, up to an agreed-upon amount. The bank covers the difference for you, but you must make a minimum monthly payment to repay the amount of the overdraft. Interest is charged at a rate similar to that of credit cards and sometimes with a monthly overdraft protection fee.
- You may have seen stores or websites where you can borrow money without having to go to a bank or financial institution. This type of short-term loan is sometimes called a **payday loan** because the term is usually only until your next pay day. Payday loans usually charge high interest rates, with interest compounded daily.

Whichever way you borrow money, you will have to pay a finance charge. The total amount you pay varies depending on the amount of the loan, the interest rate, the amortization period of the loan, and the amount and number of regular payments.

Payday loan: a small, short-term loan with a high interest rate intended to cover the borrower's expenses until their next pay day.

DISCUSS THE IDEAS

PERSONAL LOANS

A loan can be secured or unsecured. A secured loan means that the borrower has promised to turn over to the lender a particular item of value, such as a car or property, if they **default**, or fail to repay, the principal and interest on the loan. The item of value is **collateral**. An unsecured loan is a loan for which the lender considers you a low risk, so there is no need for collateral.

The interest rate on secured loans is usually lower than the interest rate on unsecured loans.

1. Suggest reasons why the interest rate would be lower on a secured loan.
2. Do you think the amount of money a financial institution would lend someone would change depending on what was being used to secure it? Why or why not?
3. What **assets** might people generally use as collateral to secure a loan?

Default: failure to repay a loan

Collateral: an item of value pledged by a borrower to secure a loan

Asset: an item of economic value owned by an individual that could be converted to cash

Example 1: Calculating the interest rate for a loan

A payday loan store charged Matt \$40.00 interest on a \$350.00 loan. Matt paid back the total amount of \$390.00 after 10 days.

a) What was the annual interest rate for this loan?

$$\frac{I}{Pt} = \frac{Rt}{t} \quad r = \frac{I}{Pt} = \frac{40}{(350)\left(\frac{10}{365}\right)} = \frac{40}{9.58904} = 4.17 \times 100 = 417\%$$

b) What was the daily interest rate for this loan?

$$\frac{417\%}{365 \text{ days}} = 1.14\%$$

Example 2: Using personal loan calculator table (Pg. 132)

Paul borrows \$2500.00 to purchase a laptop and software.

-He takes out a personal loan from his credit union at an annual rate of 6.25% with amortization period of 2 years.

a) What is his monthly payment?

$$2500 \cdot \frac{44.43}{1000} = \frac{x}{2500} \cdot 2500 \quad x = \$111.08$$

b) Calculate the total amount he will pay over the 2 years.

$$111.08 \times 24 = \$2665.92$$

c) Calculate the finance charge on the loan.

$$\begin{aligned} \text{(interest)} \quad & 2665.92 - 2500 \\ & = \$165.92 \end{aligned}$$

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